

STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

**This permit includes designated equipment to New Source Performance Standards (NSPS),
Subpart WWW and National Emissions Standards for Hazardous Air Pollutants (NESHAP),
Subpart AAAA.**

This permit supersedes permits dated January 28, 2003

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia
Regulations for the Control and Abatement of Air Pollution,

Waste Management of Virginia, Inc.
P.O. Box 168
Amelia, Virginia 23002
Registration No. 30993
County-Plant No. 007-0010

is authorized to modify and operate

a landfill gas collection and control system for a Municipal
Solid Waste facility
(Amelia Landfill Facility)

located at

20221 Maplewood Road
Jetersville, VA 23870

in accordance with the Conditions of this permit.

Approved on **September TBD, 2007**

Robert J. Weld
Deputy Director, Department of Environmental Quality

Permit consists of 15 pages.
Permit Conditions 1 to 42.
Source Testing Report Format

INTRODUCTION

This permit approval is based on the permit application dated April 16, 1997, including amendment information dated July 2, 1997, January 21, 2000, August 11, 2000, March 12, 2001, May 18, 2001, June 15, 2001, October 23, 2001, November 26, 2001, November 29, 2001, December 17, 2001, March 6, 2002, September 18, 2002, November 27, 2006, March 8, 2007, April 2, 2007 and May 9, 2007. Any changes in the permit application specifications or any existing facilities that alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the facility to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Equipment to be Constructed				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	
CF-2	Parnel Biogas Utility Flare with a maximum flow rating of 3000 SCFM and equipped with a blower with a maximum flow rating of 3000 SCFM.	3000 SCFM	NSPS Subpart WWW NESHAP Subpart AAAA	

Equipment permitted prior to the date of this permit
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Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
CF-1	Parnel Biogas Utility Flare with a maximum flow rating of 3000 SCFM and equipped with a blower with a maximum flow rating of 3000 SCFM.	3000 SCFM	NSPS Subpart WWW NESHAP Subpart AAAA	01/28/2003
LF-1	Municipal Solid Waste Landfill Phases 1 through 34 with a total capacity of 43,000,000 cubic yards (maximum compaction of 1700 lbs/ cubic yards) of combined waste.	43,000,000 cubic yards	NSPS Subpart WWW NESHAP Subpart AAAA	01/28/2003

Equipment installed prior to the date of this permit				
Reference No. Tanks	Equipment Description	Rated Capacity	Federal Requirements	Installation Date
1	Fuel Oil Storage Tank	10000 Gallons	Insignificant (Title V)	1992
2	Fuel Oil Storage Tank	500 Gallons	Insignificant (Title V)	2007
3	Gasoline Storage Tank	500 Gallons	Insignificant (Title V)	2007
4	Lube Oil Storage Tank	500 Gallons	Insignificant (Title V)	1992
5	Lube Oil Storage Tank	550 Gallons	Insignificant (Title V)	1992
6	Waste Oil/Used Oil Tank	550 Gallons	Insignificant (Title V)	1992
7	Lube Oil Storage Tank	275 Gallons	Insignificant (Title V)	1992
8	Other	275 Gallons	Insignificant (Title V)	1992
9	Leachate Storage Tank	250000 Gallons	Insignificant (Title V)	1992
10	Leachate Storage Tank	250000 Gallons	Insignificant (Title V)	1992
11	Other	1500 Gallons	Insignificant (Title V)	1992
12	Other	3310 Gallons	Insignificant (Title V)	1992

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.

(9 VAC 80-1180 D 3)

2. **Design Capacity** - The design capacity of the MSW landfill which includes Phases 1 through 34 is 43,000,000 cubic yards with a maximum compaction of 1700 lbs/cubic yards. A change in the design capacity may require a State Air Pollution Control Board permit to construct and operate.
 (9 VAC 5-50-390)

3. **LFG Collection and Control System: Design and Operational Standards** - The facility shall operate the active landfill gas (LFG) collection and control system for the Amelia Landfill Facility in the following manner :
 - a. Design the system to handle the maximum expected gas flow rate from Phases 1 through 34 which is being required to be re-calculated using the procedures listed in 40 CFR 60.755(a)(1) and with the methane generation rate constant as determined in the revised active gas collection and control system design plan approved by the Piedmont Regional Office. The maximum expected gas flow rate shall be recalculated again when additional cells other than those listed are proposed for landfill expansion and the LFG system shall be redesigned to handle the maximum expected gas flow rate from the entire area of the landfill;
 - b. Collect gas from each area, cell or group of cells in which initial solid waste has been in place for a period of:

1. 5 years or more if active;
2. 2 years or more if closed or at final grade;

The following cells are required to have the gas collected and controlled by the listed date based upon the date of first waste placement and the landfill being active.

Collection and Control Required By Date:

Phase 1 North	May 4, 1998
Phase 1 South	August 13, 1998
Phase 2 North	May 20, 1999
Phase 2 South	September 12, 1999
Phase 3	August 2, 2000
Phase 4	June 4, 2002
Phase 11	February 8, 2004
Phase 12	July 16, 2006
Phases 5-10	5 Years from date of first waste placement in individual cell
Phases 13-34	5 Years from date of first waste placement in individual cell

- c. Collect gas at a sufficient extraction rate to meet all operational requirements. Upon maturation of the landfill and full implementation of the gas collection and control system, the gas collection and control system design shall have an assumed average collection efficiency of 75%;
- d. Operate each wellhead under negative pressure except as provided in 40 CFR 60.753 (b).
- e. Operate each interior wellhead in the collection system such that it has a landfill gas temperature less than 55°C and has either a nitrogen content less than 20 percent, as determined by EPA Method 3C; or an oxygen content less than 5 percent, as determined by EPA Method 3A or 3C. The facility may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
- f. Design the system to minimize off-site migration of subsurface gas by installing liners meeting the requirements listed in 40 CFR 258.40 or equivalent as approved DEQ Solid Waste Division for Phases 1 through 34;
- g. Route the collected landfill gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system is subject to the requirements listed in h; **OR**
- h. Control landfill gas emissions by routing the collected landfill gas to the open flares, CF-1 and/or CF-2. The installation of open flare, CF-2, must occur within 18 months from March 1, 2011 or this permit is invalidated. The open flare, CF-2, must meet the criteria in 40 CFR 60.18;
- i. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill (40 CFR 60.753(d)).

A change in items g and h may require a permit to modify and operate.
(9 VAC 5-50-410)

4. **Open Flare Requirements** - The Parnell Biogas Utility Flares (CF-1 and CF-2) shall be subject to the following requirements listed in 40 CFR 60.18 and 40 CFR 60.756.
 - a. A non-assisted flare type shall be installed.

- b. The net heating value for the landfill gas being combusted shall be 200 BTU/SCF or greater and determined according to methods listed in 40 CFR 60.18(f)(3) or other methods approved by EPA, Region III.
 - c. The exit velocity shall be less than 60 FT/SEC except when the net heating value for the landfill gas is greater than 1,000 BTU/SCF OR the exit velocity is less than V_{MAX} and less than 400 FT/SEC. The exit velocity shall be determined using the applicable methods listed in 40 CFR 60.18(f)(4) and 40 CFR 60.18(f)(5) or other methods approved by EPA, Region III.
 - d. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, shall be installed at the flare's pilot light or the flame itself to indicate the continuous presence of a flame.
 - e. A gas flow-meter shall be installed, calibrated, and maintained to record the landfill gas flow to the flare at minimum every 15 minutes.
- (9 VAC 5-50-410)

5. **Open Flare Requirements** - The Parnel Biogas Utility Flares (CF-1 and CF-2) shall operate within the following parameters to ensure that the emission factors for carbon monoxide (0.15 lb/MMBTU) and nitrogen oxides as NO₂ (0.068 lb/MMBTU) are met:
- a. A landfill gas flow rate from 300 SCFM (minimum) to 3,000 SCFM (maximum).
 - b. A maximum heat input of 98.3 MMBTU/hour (HHV), which shall be demonstrated using the procedures listed in Condition 26p.
 - c. A methane concentration in the landfill gas from 30% (minimum) to 60% (maximum).
- (9 VAC 5-50-90)

6. **Dust Emission Control** - Unless otherwise specified, dust emission controls shall include the following or equivalent as a minimum:
- a. Dust from grading, cell construction, waste compaction, application of daily cover, wood waste chipping operations, storage piles and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ) control measures.
 - b. All material being stockpiled shall be kept moist to control dust during storage and handling, or covered to minimize emissions.
 - c. Dust from haul roads shall be controlled by wet suppression and prompt removal of dried sediment resulting from soil erosion and dirt spilled or tracked onto paved surfaces within the landfill.
 - d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.
- (9 VAC 5-50-90)

OPERATIONAL STANDARDS

7. **Operational Requirements** – The facility shall demonstrate compliance with operational standards for the landfill gas collection and control system required by 40 CFR 60, NSPS Subpart WWW. All reports required to demonstrate compliance with the compliance requirements of NSPS Subpart WWW shall be prepared and submitted to the Piedmont Regional.
- (9 VAC 5-50-410)
8. **Operational Requirements** – The facility shall demonstrate compliance with 40 CFR 63, NESHAP Subpart AAAAA. All reports required to demonstrate compliance with the compliance requirements of NESHAP Subpart AAAAA shall be prepared and submitted to the Piedmont Regional.

(9 VAC 5-50-410)

9. **Gas Collection and Control System Design Plan** – The facility shall furnish a revised Gas Collection and Control System Design plan with additional information within 120 days of the issuance of this permit to the Director, Piedmont Regional Office for approval. The submitted revised design plan does not preclude the Piedmont Regional Office from requiring a future revised active gas collection and control system design plan if current parameters change.
(9 VAC 5-50-410)
10. **Operation of Landfill** - Except where this permit is more restrictive than the applicable requirement, the MSW landfill shall be constructed and operated in accordance with 40 CFR 60, Subpart WWW and 40 CFR 63 NESHAP Subpart AAAA.
(9 VAC 5-50-410)
11. **Operation of LFG Collection and Control System** – The gas control system, which consists of the Parnel Biogas Utility Flares (CF-1 and/or CF-2) shall be in operation when the collected gas is routed to it. The gas mover system shall be shut down and all valves in the collection and control system allowing atmospheric venting of landfill gases shall be closed within 1 hour if the collection or control system is inoperable.
(9 VAC 5-50-410)
12. **Fuel** - The approved fuel for the Parnel Biogas Utility Flares (CF-1 and CF-2) is landfill gas. The flares may also use propane gas to ignite the pilot flame in each flare. A change in fuel may require a permit to modify and operate.
(9 VAC 5-50-410, 9 VAC 5-50-50)
13. **Fuel** – The Parnel Biogas Utility Flares (CF-1 and CF-2) each shall consume no more than 1,576,800,000 cubic feet of landfill gas per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160, 9 VAC 5-50-410)

EMISSION LIMITATIONS

14. **Visible Emission Limit** – The Parnel Biogas Utility Flares (CF-1 and CF-2) shall be operated with no visible emissions, as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during two consecutive hours. This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 50-260 and 9 VAC 5-50-410)

15. **Emission Limits** - Emissions from the operation of each of the Parnel Biogas Utility Flares (CF-1 and CF-2) shall not exceed the limits specified below:
Particulate Matter/PM10/PM2.5 1.8 lbs/hr 8.0 tons/year

Sulfur Dioxide	1.6 lbs/hr	7.0 tons/year
Nitrogen Oxides	6.7 lbs/hr	29.3 tons/year
Carbon Monoxide	14.8 lbs/hr	64.6 tons/year
Non-Methane Organic Compounds	1.2 lbs/hr	5.1 tons/year
Volatile Organic Compounds	0.5 lbs/hr	2.0 tons/year

(9 VAC 5-50-260, 9 VAC 5-50-180)

16. **Emission Limits** - Emissions from the operation of both the Parnel Biogas Utility Flares (CF-1 and CF-2) combined shall not exceed the limits specified below:

Particulate Matter/PM10/PM2.5	16.1 tons/year
Sulfur Dioxide	14.0 tons/year
Nitrogen Oxides	58.6 tons/year
Carbon Monoxide	129.3 tons/year
Non-Methane Organic Compounds	10.2 tons/year
Volatile Organic Compounds	3.9 tons/year

(9 VAC 5-50-260, 9 VAC 5-50-180)

17. **Emission Factors** - The following emission factors (or others approved by the Piedmont Regional Office) shall be used to calculate emissions from the open flares:

Particulate Matter/PM ₁₀	17.0	lbs/mmcf CH ₄
Sulfur Dioxide	8.9	lbs/mmcf LFG*
Nitrogen Oxides	0.068	lbs/mmBtu
Carbon Monoxide	0.15	lbs/mmBtu
Non-Methane Organic Compounds	6.5	lbs/mmcf LFG*
Volatile Organic Compounds	2.5	lbs/mmcf LFG*

*These emission factors are based on 60% methane in the LFG, which represents the maximum methane percentage the flare manufacturers will guarantee. Actual methane percentages may be less. The Sulfur concentration is assumed to be 46.9 ppm.
 (9 VAC 5-50-260 and 9 VAC 5-80-1180)

INITIAL COMPLIANCE DETERMINATION

18. **Initial Performance Test** - Initial performance tests shall be conducted to determine the net heating value of the gas being combusted and the actual exit velocity for the Parnel Biogas Utility Flare. The tests for open flare (CF-2) shall be performed, and demonstrate compliance, within 60

days after achieving maximum production rate at which each flare will be operated but no later than 180 days after initial start-up of the flare CF-2. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations. The test methods and procedures contained in 40 CFR 60.18(f)(3) and 40 CFR 60.18(f)(4) or alternative test methods and procedures as approved by EPA, Region III shall be used to determine the net heating value of the gas being combusted and the actual exit velocity for open flare CF-2. The details of the tests for open flare CF-2 are to be arranged with the Piedmont Regional Office. The facility shall submit a test protocol at least thirty (30) days prior to testing for the open flare CF-2. Two (2) copies of the test results for open flare CF-2 shall be submitted to the Piedmont Regional Office within 45 days after test completion and 180 days after initial startup for open flare CF-2. Each test report shall conform to the test report format enclosed with this permit and shall be submitted with the annual compliance report.

(9 VAC 5-50-30, and 9 VAC 5-50-410)

19. **Determination of NMOC Concentration and LFG Flow Rate** - After the installation of a gas collection and control system in compliance with 40 CFR 60.755, the facility shall determine the actual NMOC concentration and LFG flow rate and shall calculate the NMOC emission rate in accordance with 40 CFR 60.754 (b) for determining when the GCCS can be removed per 40 CFR 60.752(b)(2)(v), this requirement is applicable upon closure of the landfill and a minimum of 15 years of GCCS operation.
(9 VAC 5-50-410)

20. **Visible Emissions Evaluation** - Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 22, shall also be conducted by the facility on the following equipment: the Parnell Biogas Utility Flare CF-2. Each observation period shall be 2 hours. The details of the tests are to be arranged with the Piedmont Regional Office. The facility shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed within 60 days after achieving the maximum production rate at which the flare will be operated but no later than 180 days after initial start up of the flare CF-2. Should conditions prevent observations, the Piedmont Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30, and 9 VAC 5-50-410)

MONITORING

21. **LFG Collection System Monitoring Requirements** - The operation of the gas collection system shall be monitored as follows:
- a. The following items shall be monitored each month:
 1. Gauge pressure, each well.
 2. LFG temperature, each well.
 3. Nitrogen concentration or oxygen concentration, each well.
 4. Cover integrity.
 - b. The methane concentration at the landfill surface shall be monitored at least once every quarter.
 - c. The permanent gas monitoring probes currently installed around the perimeter of the site shall be monitored on a semi-annual basis for methane in percent (%) following the procedures listed in Solid Waste Permit #540.
 - d. The methane concentration of the landfill gas feeding flares CF-1 and CF-2 shall be

monitored at least once every week when landfill gas is vented to the flare during the weekly timeframe. The monitoring may occur at the common header feeding the flare.
(9 VAC 5-50-410, 9 VAC 5-50-260)

22. LFG Control System Monitoring Requirements - The operation of the gas control system shall be monitored as follows:

- a. Landfill gas flow, recorded at least once every 15 minutes for open flares CF-1 and CF-2.
- b. The presence of the pilot flame or the flare flame shall be continuously monitored by a heat sensing device and recorded for open flares CF-1 and CF-2 when landfill gas is being vented to the flare.

(9 VAC 5-50-410, 9 VAC 5-50-260)

23. Corrective Actions - If monitoring demonstrates that the requirements of Conditions 3 (d), (e), or (i) are not being met, corrective actions shall be taken as specified in 40 CFR 60.755 (a) (3) through (5) or 40 CFR 60.755 (c). If corrective actions are taken as specified in 40 CFR 60.755(a)(3) through (5) or 60.755 (c), the monitored exceedance for the surface methane operational standard is not a violation of the operational requirements of this permit or 40 CFR 60, Subpart WWW.

(9 VAC 5-50-410)

24. Equipment – All monitoring equipment required to comply with Subpart WWW (subsection 60.756 (b) and (c) shall be installed and operational within 180 days of the date of actual landfill gas transfer to the Parnell Biogas Utility Flares (CF-1 and CF-2). Verification of satisfactory operation of monitoring equipment shall, at a minimum, include certification that manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices have been followed.

(9 VAC 5-50-410)

25. NSPS Requirements - The landfill gas collection and control system shall be monitored and all appropriate data recorded as required in Subpart WWW (Subsection 60.756).

(9 VAC 5-50-410)

RECORD KEEPING

26. On-Site Records - The facility shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

- a. Current maximum design capacity, current amount of refuse in place, and year by year refuse accumulation rates.
- b. Description, location, amount, and placement date of all non-degradable refuse including asbestos, demolition refuse, and coal ash placed in landfill areas that are excluded from landfill gas estimation or landfill gas collection and control.
- c. Installation date and location of all newly installed wells and collectors.
- d. Map or plot showing each existing and planned well and collector in the gas collection system with each well and collector uniquely identified.
- e. Maximum expected gas generation flow rate calculated according to 40 CFR 60.755(a)(1).
- f. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures listed in 40 CFR 60.759(a)(1).
- g. The type of open flares (i.e. steam-assisted, air-assisted, or non-assisted) used, all visible emission readings, the heat content determination, gas flow rate measurements, and exit velocity determinations made during the required

- performance tests for open flares CF-1 and CF-2.
- h. The flare pilot flame or flare flame continuous monitoring in the flare stack for open flares CF-1 and CF-2 when landfill gas is being vented to the flare.
 - i. All periods of operations when landfill gas is being vented to the open flares CF-1 and CF-2 during which the pilot flame or flare flame is absent for the open flare.
 - j. The monthly monitored gauge pressure, temperature, and nitrogen or oxygen concentration for each well.
 - k. The results from the monthly cover integrity monitoring and the date of cover repair.
 - l. The quarterly monitored methane concentration 500 ppm and above at the landfill surface and the surface monitoring plan developed for the quarterly monitoring which includes a topographic map with the monitoring route at 30 meter intervals and the rationale for any site-specific deviations from the required intervals.
 - m. The semi-annual monitored permanent gas monitoring probes for methane in percent (%) currently installed around the perimeter of the site.
 - n. The weekly monitored methane concentration of the landfill gas feeding flares CF-1 and CF-2 during the weekly timeframe when landfill gas is being vented to the flare. The monitoring may occur at the common header feeding the flare.
 - o. The landfill gas flow, recorded at least once every 15 minutes for the open flares CF-1 and CF-2.
 - p. The heat input for the open flares CF-1 and CF-2 calculated on a quarterly basis using the higher heating value of methane (911 BTU/SCF), the quarterly highest monitored methane concentration recorded for item n and the corresponding gas flow during this quarterly highest monitored methane concentration.
 - q. All exceedances for the monitoring requirements listed in Conditions 21a and 21b the results from any subsequent readings of an exceedance parameter, the location of the exceedance, and the action taken to correct the exceedance.
 - r. All decommissioned wells.
 - s. Any inoperable periods exceeding 1 hour for the collection or control system, when landfill gas is being vented.
 - t. The yearly throughput of landfill gas to the open flares CF-1 and 2 calculated monthly as the sum of each consecutive 12 month period. Emissions calculations for open flares CF-1 and 2.
 - u. Date of first waste placement for Phases 1 through 34.
 - v. Calculations detailing the estimated annual site specific density and maximum design capacity.
 - w. A copy of the most recent approved gas collection and control system design plan.
- These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-50-410)

REPORTING

27. **Compliance Report** - The semi-annual compliance report shall be submitted to the Piedmont Regional Office by the date specified below and shall contain the following:
- a. The initial performance test report for the Parnell Biogas Utility Flares (CF-1 and 2) which shall contain the following information:
 - 1. All visible emission readings.

2. Heat content determination.
3. Gas flow rate or bypass measurements.
4. Exit velocity determinations.
- b. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756 (a), (b), (c), and (d);
- c. Description and duration of all periods when the open flares CF-1 and CF-2 were not working for a period exceeding 1 hour and length of time the open flares were not operating when landfill gas was being routed to the flare;
- d. Description and duration of all periods when landfill gas is diverted from the open flares CF-1 and CF-2 through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756;
- e. All periods when the collection system was not operating in excess of 5 days;
- f. The location of each exceedance of the 500 parts per million surface methane concentration, and the concentration recorded at each location for which an exceedance was recorded as provided in 40 CFR 60.755 (c); and
- g. The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a) (3), (b), and (c) (4) of 60.755.

Items (b) through (g) shall be submitted semi-annually. Subsequent annual reports shall cover the calendar year (from January through December). All subsequent annual reports shall be submitted prior to March 31 of the following calendar year. The initial performance tests for open flares CF-1 and CF-2 should be submitted with the annual compliance report covering the time period when the initial performance tests were conducted. One copy of the annual compliance report shall be submitted to the U.S. Environmental Protection Agency at the address specified in Condition 32.

(9 VAC 5-50-410)

28. **Closure Report** - The facility shall submit a closure report to the Piedmont Regional Office within 30 days of the date the MSW landfill stopped accepting waste.
(9 VAC 5-50-410)

29. **Equipment Removal Report** - The facility shall submit an equipment removal report to the Piedmont Regional Office 30 days prior to the removal or cessation of operation of the control equipment.
(9 VAC 5-50-410)

30. **Annual Emission Report for Fee Calculation** - The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the department.
(9 VAC 5-80-340(C))

31. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 F)

NOTIFICATIONS

32. **Initial Notifications** - The facility shall furnish written notification to the Director, Piedmont Regional Office:
- a. The actual date on which construction for open flares CF-1 and CF-2 at the Maplewood Recycling and Disposal Facility commenced within 30 days after such date.
 - b. The anticipated start-up date for open flares CF-1 and CF-2 postmarked not more than 60 days nor less than 30 days prior to such date.

- c. The actual start-up date for open flares CF-1 and CF-2 within 15 days after such date.
- d. The anticipated date of performance tests required for the open flares CF-1 and CF-2 at least 30 days prior to such date.
- e. Any modifications to the gas collection and control system design plan that was submitted July 2000 and any subsequent plans approved by the Piedmont Regional Office at least 90 days prior to such date. Modification examples include, but are not limited to: installing control devices other than open flares CF-1 and CF-2, changes in the treatment system that processes the collected gas for subsequent sale or use or installation of blowers other than those attached to open flares CF-1 and CF-2.

Copies of the written notification referenced in items a through d above is to be sent to:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029]

(9 VAC 5-50-50)

GENERAL CONDITIONS

33. **Permit Invalidation** - This permit to construct open flares CF-1 and CF-2 shall become invalid, unless an extension is granted by the DEQ, if:
- a. A program of continuous construction for open flares CF-1 and CF-2 is not commenced before the latest of the following:
 - i. 18 months from the date of this permit;
 - ii. Nine months from the date that the last permit or other authorization was issued from any other governmental agency;
 - iii. Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or
 - b. A program of construction for open flares CF-1 or CF-2 are discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.
- (9 VAC 5-80-1210D)

34. **Right of Entry** - The facility shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- a. To enter upon the facility's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
 - c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
 - d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9 VAC 5-170-130)

35. **Notification for Control Equipment Maintenance** - The facility shall furnish notification to the Director, Piedmont Region of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

- a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
- b. The expected length of time that the air pollution control equipment will be out of service;
- c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
- d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-20-180 B)

36. **Notification for Facility or Control Equipment Malfunction** - The facility shall furnish notification to the Director, Piedmont Region of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The facility shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the facility shall notify Director, Piedmont Region in writing.

(9 VAC 5-20-180 C)

37. **Violation of Ambient Air Quality Standard** - The facility shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-20-180 I)

38. **Maintenance/Operating Procedures** - The facility shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The facility shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-20 E)

39. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the facility:

- a. Knowingly makes material misstatements in the application for this permit or any

- amendments to it;
 - b. Fails to comply with the conditions of this permit;
 - c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;
 - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
 - e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
 - f. Fails to construct or operate this facility in accordance with the application for this permit or any amendments to it; or
 - g. Allows the permit to become invalid.
- (9 VAC 5-80-1210 D)

40. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Piedmont Region of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

41. **Registration/Update** - Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the facility to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.
(9 VAC 5-170-60, 9 VAC 5-20-160)

42. **Permit Copy** - The facility shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-170-160)

STATE-ONLY ENFORCEABLE REQUIREMENTS

The following condition (number 43) is included in this permit to implement the requirements of 9 VAC 5-50-130 et seq. and is enforceable only by the Virginia Air Pollution Control Board. Neither their inclusion in this permit nor any resulting public comment period make these terms federally enforceable.

43. **Odor Management Plan:** The approved Odor Management and Control Plan describing the practices and technology that will be used to minimize off-site odors and to address odor complaints that may occur shall be an enforceable part of this permit. The plan shall incorporate the use of best available odor control technology that is appropriate for this landfill. The plan shall also describe procedures that will be implemented in response to citizen odor complaints or the detection of significant off-site odors by DEQ staff, including

progressive steps that will be taken to reduce odors. A log of all odor complaints received and actions taken shall be kept and made available for inspection by authorized Federal, State or Local officials. The Odor Management and Control Plan shall be reviewed annually by the Facility and evaluated for the need and feasibility of new or modified odor control technology or practices. Results of the annual plan review, a modified plan (if applicable) and a copy of the log shall be submitted to the Piedmont Regional Office by the first day of March of each year.

(9 VAC 5-50-140 and 9 VAC 5-50-260)

SOURCE TESTING REPORT FORMAT

Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address and report date

Certification

1. Signed by team leader / certified observer (include certification date)
- * 2. Signed by reviewer

Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- * 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- * 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

Appendix

- * 1. Process data and emission results example calculations
2. Raw field data
- * 3. Laboratory reports
4. Raw production data
- * 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

* Not applicable to visible emission evaluations.